

Application No.: 10/689,629

Docket No.: 2336-213

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for manufacturing a semiconductor laser device, comprising the steps of:
 - (a) sequentially forming a first conductive-type clad layer, an active layer, and a second conductive-type clad layer, on a first conductive-type semiconductor substrate;
 - (b) forming a ridge structure by selectively etching the second conductive-type clad layer;
 - (c) forming a current blocking layer around the ridge structure, said current blocking layer having protrusions on the upper surface thereof adjacent to the ridge structure, and having at least one of an amorphous and/or and polycrystalline layer on a partial area thereof;
 - (d) wet-etching the upper surface of the current blocking layer, so that at least one of the amorphous and/or and polycrystalline layer is removed from the current blocking layer and the protrusions are reduced in size; and
 - (e) forming a second conductive-type contact layer on the upper surface of the current blocking layer.

2. (Currently Amended) ~~The method as set forth in claim 1,~~ A method for manufacturing a semiconductor laser device, comprising the steps of:
 - (a) sequentially forming a first conductive-type clad layer, an active layer, and a second conductive-type clad layer, on a first conductive-type semiconductor substrate;
 - (b) forming a ridge structure by selectively etching the second conductive-type clad layer;
 - (c) forming a current blocking layer around the ridge structure, said current blocking layer having protrusions on the upper surface thereof adjacent to the ridge structure, and having at least one of an amorphous and polycrystalline layer on a partial area thereof;

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(d) wet-etching the upper surface of the current blocking layer, so that at least one of the amorphous and polycrystalline layers is removed from the current blocking layer and the protrusions are reduced in size; and

(e) forming a second conductive-type contact layer on the upper surface of the current blocking layer;

wherein an upper surface of the ~~second conductive-type clad~~ current blocking layer is a {100} plane, and an inclined surface of the ~~ridge structure of the second conductive-type clad~~ current blocking layer is near to a {111} plane.

3. (Currently Amended) The method as set forth in ~~claim 1~~ claim 2;

wherein the step (b) includes:

(b-1) forming a mask at a partial ~~are~~ area of an upper surface of the second conductive-type clad layer; and

(b-2) etching the second conductive-type clad layer so that the ridge structure is formed at the area of the mask.

4. (Original) The method as set forth in claim 3,

wherein the step (d) includes the step of wet-etching the upper surface of the current blocking layer after the mask is removed.

5. (Currently Amended) The method as set forth in ~~claim 1~~ claim 2,

wherein the current blocking layer is made of a first conductive-type AlGaAs/GaAs material.

6. (Currently Amended) The method as set forth in claim 5,

wherein the step (d) includes the step of wet-etching the upper surface of the current blocking layer using an ~~EG-group~~ etchant operable to oxidize and then etch the AlGaAs/GaAs material.